R E P O R T R E S U M E S

ED 020 238 UD 005 672

TITLE ONE EVALUATION GUIDE FOR LOCAL EDUCATIONAL AGENCIES OPERATING TITLE I PROJECTS.

MISSOURI STATE DEPT OF EDUCATION, JEFFERSON CITY

PUB DATE MAR 67

EDRS PRICE MF-$0.25 HC-$1.24 29P.

DESCRIPTORS- *GUIDELINES, *COMPENSATORY EDUCATION PROGRAMS, *FEDERAL PROGRAMS, *PROGRAM EVALUATION, TABLES (DATA), MEASUREMENT INSTRUMENTS, STATISTICAL ANALYSIS, EVALUATION TECHNIQUES, TEST RESULTS, ANNUAL REPORTS, EVALUATION CRITERIA, DATA ANALYSIS, ESEA TITLE 1, MISSOURI

GUIDELINES ARE PRESENTED FOR THE PREPARATION OF THE REPORT EVALUATING THE TOTAL MISSOURI TITLE I PROGRAM AND INDIVIDUAL TITLE I PROJECTS. INSTRUCTIONS ARE GIVEN FOR PRESENTING TABULAR DATA IN PART I OF THE REPORT, FOR DEVELOPING EVALUATION DESIGNS AND CRITERIA, AND FOR COMPUTING QUARTILE POINTS. IN THE EVALUATION OF THE SEPARATE PROJECTS INFORMATION SHOULD BE AVAILABLE ON THE USE OF STANDARDIZED TESTS AND OTHER MEASURES, PROJECT EFFECTIVENESS, THE PROGRESS OF TITLE I PARTICIPANTS, THE FREQUENCY DISTRIBUTION OF STANDARDIZED TEST SCORES, AND NONTEST DATA. (LB)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED 01928
05672
ED 020238
672
UD 005

TITLE ONE
EVALUATION GUIDE

FOR

LOCAL EDUCATIONAL AGENCIES
OPERATING TITLE I PROJECTS
UNDER

THE ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965 P.L. 89-10

MARCH, 1967

STATE DEPARTMENT OF EDUCATION

JEFFERSON CITY, MISSOURI

TABLE OF CONTENTS

	Pages
Introduction	1
Annual Evaluation Report to be Submitted by the Local Educational Agency to the State Department of Education.	3
INSTRUCTIONS FOR PART I: EVALUATION OF TOTAL TITLE I PROGRAM	
Instructions for Pages 1-4	7
Instructions for Tables in Part I.	9-11
Table 1	9
Table 2	9-10
Table 3	10
Table 4 (Definitions)	10
Table 5	11
INSTRUCTIONS, ILLUSTRATIONS, AND GUIDE FOR PART II: EVALUATION OF TITLE I PROJECTS	
Instructions for Pages 1 - 5	15
Instructions for Pages 6 - 8	16
Illustrations of Evaluation Designs.	17-20
Evaluation Design A	17
Evaluation Design B	18-19
Evaluation Design C	19
Evaluation Design D	20
Evaluation Design E	21
Illustrations for Table 6.	22
Illustrations for Table 7.	23
Illustrations for Table 8.	24-25
Evaluative Criteria.	26-27
Guide for Computing Quartile Points.	28-33

I N T R O D U C T I O N

Why Evaluate?

Evaluation is an important part of the process in education. It should diagnose pupil strengths, weaknesses, and needs and collectively should determine objectives for improvement of the education process. In its simplest sense, to evaluate is to judge the rate, worth, or value of an activity, a service, or a program. The extent our practices and procedures are succeeding or failing should be indicated by objective evaluation. This should determine revisions needed to insure optimal results toward meeting project objectives. The assimilation of all relevant data before the project starts indicates present objectives and what direction should be taken. An annual review should show what change has occurred and what progress has been made toward established goals. It should also indicate what brought about these changes.

Evaluation is required by four different sections of the act at three levels: local, state, and federal. In order for the state agency to report meaningful data, based on operating Title I projects to the U. S. Office of Education and back to the local agency, the local agencies must report objective information. To further insure validity of results obtained, there must be uniform reporting following the suggestions given in this guide. The measurements of pupil changes and attainments in Title I projects must be more carefully assessed and controlled than through teacher judgement. On the other hand, an elaborate research study is not required. Any deviation from the evaluation forms must be worked out with the state agency previous to their date due.

Proper evaluation will be a crucial factor in any congressional review of the effectiveness of Title I activities and services. The continuance of this important educational program will depend upon the local and state agencies ability to prove in meaningful terms the improvements made as a result of Title I. Consequently, it is essential that adequate data be gathered by each local educational agency and reported to the state agency in sufficient time for analysis and reporting to the USOE. Evaluation must be carried out by the local agency in two phases: (1) for each activity and supplementary service and (2) for a total program comprising all of the agency's projects.

Purpose of This Guide

The purpose of this guide is to provide instructions and illustrations to aid the local district in completing the evaluation report of Title I projects. This report consists of two parts:

Part I Evaluation of the Total Title I Program
Part II Evaluation of Title I Projects

It is not the intent of the State Department of Education or the USOE to utilize the Annual Evaluation Report to make comparisons between local districts. Because of the differences in approaches and needs to be met, comparisons of this type would be neither valid nor meaningful. However, programs and techniques producing the best results will be compared with those showing less achievement. The local schools can use as a model those projects which are most productive.

Annual Evaluation Reports to be Submitted by the Local Educational Agency to the State Department of Education

Part I **Evaluation of Total Title I Program**

Number: One copy of this report shall be submitted by each district operating a Title I project.

Date: This report is due 30 days after the latest ending date of any project. The latest ending date of any project for the current fiscal year is August 31. The local agency should retain a complete copy of this report for their records. Failure to file this report will delay payment of funds for the next year's project.

Part II **Evaluation of Title I Projects**

Number: One copy for each Title I project.

Each copy shall include the following:

Type of Information or Data

One copy of Short Answer Section

One copy of Use of Standardized Tests and Other Measures

One copy for each project instructional activity and/or supplementary services with a Summary of Project Effectiveness

One copy for each evaluation design used of Progress Report of Title I Children and one copy for each instructional activity and/or supplementary service

One copy of Summary of Non-Test Data

One copy for each subtest of each subject area and grade level of Frequency Distribution of Standardized Test Scores

Date: This report is due not later than 30 days after ending date of the project. The local agency should retain a complete copy of this report for their records. Failure to file this report will delay payment of funds for the next year's project.

INSTRUCTIONS FOR PART I

EVALUATION OF TOTAL TITLE I PROGRAM

I N S T R U C T I O N S F O R P A R T I

Evaluation of Total Title I Program

Page 1

The Local Educational Agency should enter the number of each approved project and the amount of the project (including amendments).

The legal name of the district should be the same as listed on the approved projects.

The authorized representative must be the same as the authorized representative who signed and submitted the projects for the Local Educational Agency. The authorized representative may be assisted by others in the preparation of the report; however, the report must be signed by the authorized representative before it can be processed.

Page 2

Items 1 and 2

In determining an unduplicated number, do not count any child more than once, even though he may be involved in more than one project.

Items 3 - 5 are self-explanatory.

Page 3

Items 6 - 8 are self-explanatory.

Page 4

Item 9(a)

Technical or professional assistance refers to assistance provided by professional personnel of the State Department of Education, colleges or universities, individuals from private enterprise, or commercial companies.

Item 9(b) should be completed indicating the source(s) of assistance as shown on Item 9(a).

Items 10 - 16 are self-explanatory.

The amounts shown in these items may not equal the total amount approved for the Title I program because of other budgeted items but should account for the major part of the amount approved.

I N S T R U C T I O N S F O R T A B L E S I N P A R T I

These tables pertain to your <u>total school district and school year</u>. This is needed even if your district has only a summer project. These tables will help show, over a long term, the effectiveness of having a Title I project in improvement of attendance, lowering dropout rates, and increasing number continuing their education.

TABLE 1 WORKSHEET FOR DETERMINING DROPOUT RATE

The dropout rate should be computed as follows:

$$\text{Annual Dropout Rate} = \frac{\text{Number of Dropouts}^{1/}}{\text{Arithmetic Accountability}^{2/}}$$

Arithmetic Accountability = End of year membership + All graduates + Dropouts

---

1/Dropout--A pupil who leaves a school, for any reason except death, before graduation or completion of a program of studies without transferring to another school. Schools must keep a complete accountability of students throughout the year in order to differentiate between dropouts and transfers. The term "dropout" is used most often to designate an elementary or secondary school pupil who has been in membership during the regular school term and who withdraws from membership before graduating from secondary school (grade 12) or before completing an equivalent program of studies. Such an individual is considered a dropout whether his dropping out occurs before or after he has passed the compulsory school attendance age, and, where applicable, whether or not he has completed a minimum required amount of school work. (Definition from: U. S. Department of Health, Education, and Welfare, <u>Pupil Accounting for Local and State School Systems</u>, State Educational Records and Reports Series: Handbook V, pp. 96-97)

2/Arithmetic Accountability is determined by adding the following three items:

(A) End-of-the-year membership 3/--The number of pupils on the current roll of a school district as of the close of the regular school term, of the year studied.

(B) Graduate--An individual who has received formal recognition for the successful completion of a prescribed program of studies.

(C) Dropout--See above definition.

3/Special Note: The end-of-year membership includes all members of the grade on the last day of school. Those students who drop out between the last day of school and the following school year should be considered as a dropout for the next year.

TABLE 2 DROPOUT RATES BY GRADE FOR LAST SCHOOL YEAR

Insert the <u>number</u> of dropouts and the dropout <u>rate</u> to the nearest percent in the appropriate grade levels. The dropout rate is determined by dividing the number of dropouts in a grade by the number enrolled in that grade on the last day of school.

The following should also be completed: Number of schools having grades 7-12--number of administrative units containing any grade or combination of grades 7-12. Total number of students--end-of-year enrollment for grades 7-12. Number of dropouts--Total number of dropouts for school year and grades 7-12.

TABLE 3 PERCENTAGE OF GRADUATING CLASS CONTINUING EDUCATION BEYOND HIGH SCHOOL

When a district has only one school, the mean size of graduating class would be the same as the total number of graduates. The number of schools having continuing graduates should be entered in the appropriate percent category. This number should agree with the number of high schools in the district. A student is considered to continue his education if he enters one of the following on either a full or part-time basis: Post-graduate High School course, Junior College, College or University, a Vocational or Technical Institute, Nursing School, or Business School.

TABLE 4 AVERAGE DAILY ATTENDANCE COMPARED TO AVERAGE DAILY MEMBERSHIP BY GRADE

Average Daily Attendance (ADA)--The aggregate days attendance of a given school during a given reporting period divided by the number of days school is in session during this period. Only days on which pupils are under the guidance and direction of teachers should be considered as days in session. The reporting period is generally a given regular school term. Answers should be given to the nearest tenth.

Average Daily Membership (ADM)--The aggregate days membership of a given school during a given reporting period divided by the number of days school is in session during this period. The reporting period is generally a given regular school term. This would be the same as the average number enrolled in each grade; therefore, the ADA would always be less than the ADM for each grade level. Answers should be given to the nearest tenth.

Example--Grade 1

Number of Days School was in Session--176

Student Number	Aggregate Days Attended	Aggregate Days Membership (number of days enrolled)
1	175	176
2	47	60
3	170	176
4	172	176
5	150	176
6	97	125
7	163	176
8	99	124
	1,073	1,189

$$ADA = \frac{1073}{176} = 6.09 = 6.1 \qquad ADM = \frac{1189}{176} = 6.75 = 6.8$$

Each grade would be figured in this same manner and entered in Table 4.

TABLE 5 PERSONNEL PAID WITH TITLE I FUNDS

The number of persons being paid in part or in total with Title I funds should be entered in the appropriate column. Title I personnel working during the summer would be shown in column 3 or 4. Those paid with Title I funds for work during the regular school day and school year would be shown in columns 5 or 6, and those working additional hours such as before or after school, Saturdays, etc., would be shown in column 7.

Salaries of personnel shown in columns 3 and 4 should be shown on page 4, Item 10. Salaries shown in columns 5 and 6 should be shown on page 4, Item 11 and those shown in column 7 should be shown on page 4, Item 12.

INSTRUCTIONS, ILLUSTRATIONS, AND GUIDES FOR PART II

EVALUATION OF TITLE I PROJECT

PART II

Evaluation of Title I Projects

Page 1

The State Project Number will be found on the Local Educational Agency's copy of "Request for Federal Funds" or the "Quarterly Disbursement and Estimated Requirement of Federal Funds by Local Educational Agency."

The Local Educational Agency Project Number will be on the Local Educational Agency project and the approval letter from the State Department of Education.

The County Code and Local Educational Agency Code has been sent to all Local Educational Agencies in the state.

The title of the project should be the same as given on the project application submitted by the Local Educational Agency.

Short Answer Section

Items 1 - 5

Enter an unduplicated number of students participating in the project activities (reading, language arts, summer school, etc.) during the regular school term. Enter only the number of students eligible (by living in the qualifying attendance areas) to use supplementary services (Health, Guidance, etc.) during the regular school term. Enter the number of pupils in summer school activities or services. Each student should be counted only one time during the summer, but could be counted once during the regular school term and once during the summer.

Item 6

The types of evaluation designs A through E are illustrated on pages 17 through 20 of this guide.

Page 3

Item 7

Identify by title the persons doing the evaluation.

Page 4

Identify methods used to evaluate this project by checking the appropriate items. An example for completing this page is given on page 22 of this guide.

Page 5

The Local Educational Agency should submit one copy of Table 7 for each instructional activity and each supplementary service of the project that is designed to meet the needs of educationally deprived children. Use additional pages of this table as needed. Entries should show the number of

students in each column reaching that degree of progress toward the stated objectives. Objectives and their code numbers should be taken from the project application. Choose the objectives listed which best fit the activity or service reported on each table. Indicate, by checking, the basis for judgement differentiating which column a student is entered in.

Page 6

Submit one copy of this page for each instructional activity and one copy of this page for each supplementary service. Regular school term activities should be evaluated separate from summer activities. This page should show the total changes brought about by the Title I program. Standardized test results should be supported by any other evaluative criteria giving a more complete picture of changes found. Unexpected outcomes should also be reported here.

Page 7

1. A copy of any questionnaires used should be attached with a summary of tabulated results.

2. Please report incidents happening in Title I activities which would be of human interest value. This would include humor, change of behavior, or attitude by parents, students, or teachers. Names need not be included. Systematic collection of these human interes' happenings makes their inclusion in this report much easier.

Page 8

All information identifying the test, forms used, dates administered, etc. should be filled in. The length of project should show the number of weeks students were involved in project activities. The time between test dates should indicate the actual number of weeks elasped even though school was not in session part of that time.

Include only the test results of students present for both pre and post tests.

Enter the number of students making each Grade Placement (G.P.) score in the appropriate column. A sample table is given on page 25 of this guide. One table should be constructed for each subtest and each grade. For example: if two subtests of (1) Vocabulary and (2) Reading Comprehension were given to grades 3 through 6, one table should be constructed for grade 3 Vocabulary, one table for grade 4 Vocabulary, etc; then one table for grade 3 Reading Comprehension, one table for grade 4, Reading Comprehension, etc. until eight separate tables were constructed for the two subtests and four grades included in the project.

Copies of this table may be made by stencil, ditto, copy machine, etc. to make the number of tables necessary for each project. Attach the total number of pages needed to the evaluation form when reporting to Title I.

Title I project activities for Special Education children may show all standardized test data on an ungraded basis. Other projects using standardized tests which are not available in grade placement scores (such as physical education tests, personality tests, speech tests, etc.) should be reported by grade in the standardized units shown in the test manual.

Any other deviation from this form must have written prior approval from the Title I Section. A school district having a project organized on a completely non-graded basis should contact the Title I Section for approval, if they wish to report standardized test data on other than a grade basis.

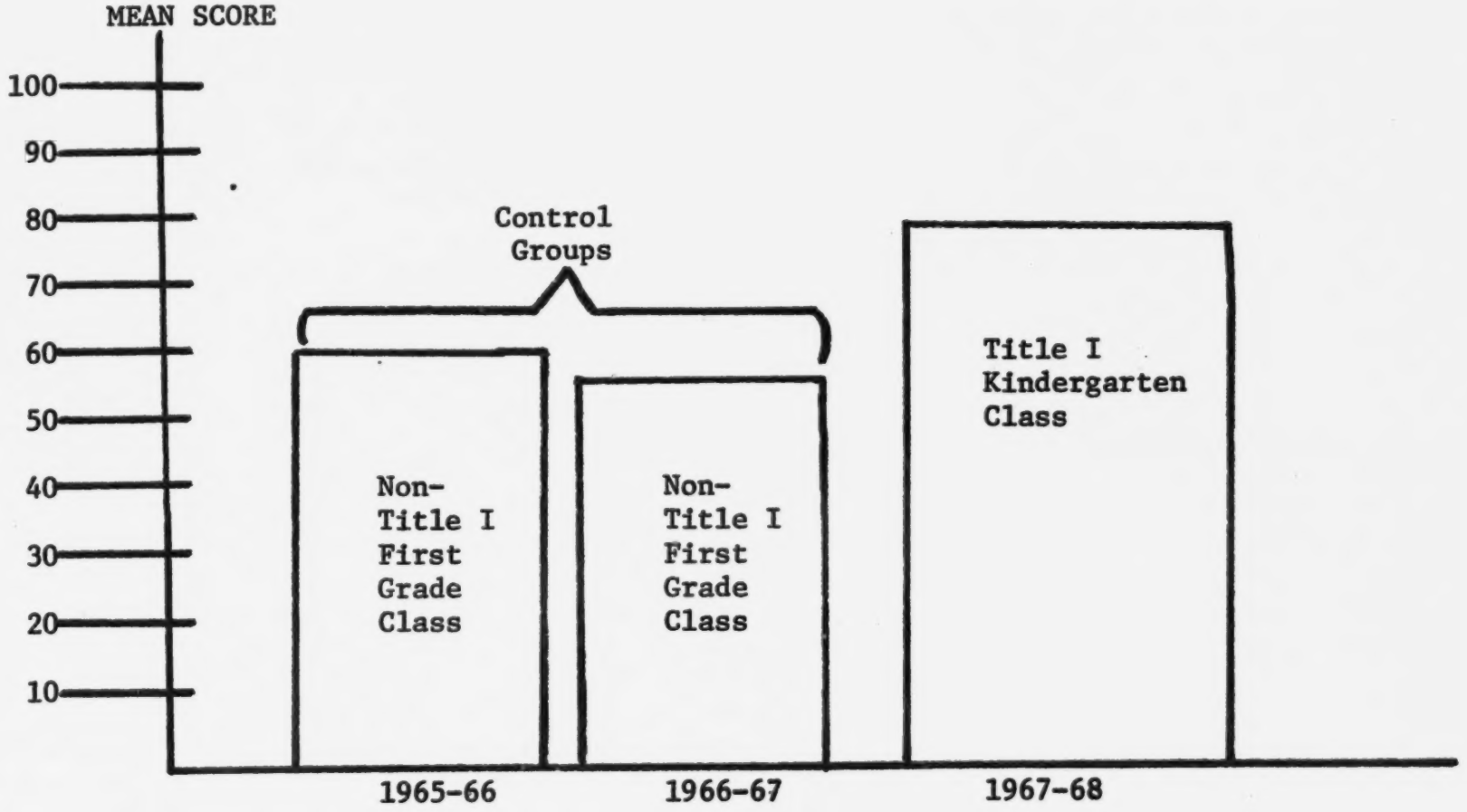
Illustrations of Evaluation Designs for

Part II - Evaluation of Title I Projects

Evaluation Design A: Two group experimental design using the project group and a conveniently available non-project group as the control.
Example 1: Title I Kindergarten Project

As one means of evaluating the effectiveness of a kindergarten project, a local district used the scores made on the Reading Readiness Test which they administer to children entering the first grade.

The mean score on the readiness test earned by the Title I Kindergarten group at the end of the Kindergarten project was compared to the mean scores earned by two previous groups that entered first grade without having attended a kindergarten program. These results may be seen below.



Mean Scores on Readiness Test of beginning first grade classes compared to Kindergarten scores at end of Kindergarten class.

It can be seen that the two previous group means were similar, but the group that participated in the Kindergarten program scored higher. Thus, it can be concluded that the Title I Kindergarten project was effective in terms of the scores earned on the Reading Readiness Test.

(Illustrations of Evaluation Designs)

Evaluation Design B: One group design using a pretest and posttest on the project group to compare observed gains or losses with expected gains.
Example 1: Change reported in terms of change in the first and third Quartile points for a seventh grade Title I group.

Expected progress of the Title I Group, based on published norms, was .1 (one-tenth) of a grade progress for each month of instruction. The project was operated for a period of four months. The expected progress was .4 of a grade. The results may be seen below.

	$Quartile_1$	$Quartile_3$
Posttest	4.0	6.9
Pretest	3.6	6.3
Change	+.4	+.6

The first and third quartile points from the pre and post tests were compared to report the change. The change in the first quartile point was +.4 of a grade which was equal to the expected change of +.4. The change in the third quartile point was +.6 which was above the expected change of +.4. The district concluded that in terms of the test scores the Title I project was successful.

A guide for the computation of quartile points has been provided in the instructions.

Example 2: Change reported in terms of comparing pretest and posttest median scores with the expected gain.

	Vocabulary	
	Pretest	Posttest
Median	4.0	4.6

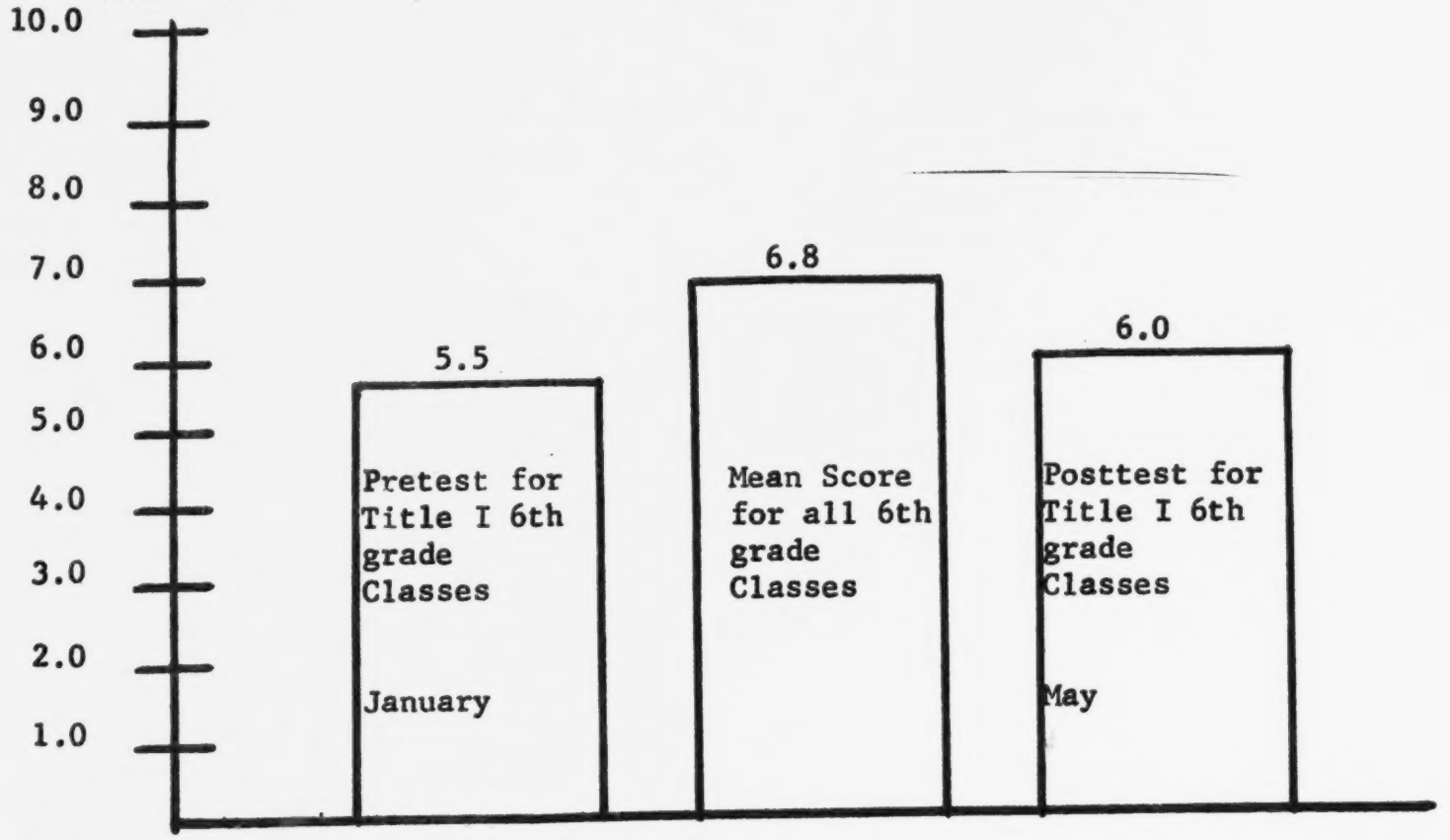
(Illustrations of Evaluation Designs)

The evaluation procedure was to compare the project group scores with a designated norm. The designated norm in this situation was the expected gain based on the published norms. Each pupil was expected to gain one month in achievement for each month of instruction. The length of the project was five months.

An examination of the median scores shows that the pretest median score was 4.0. The posttest median score was 4.6. The median gain was six months. It can be concluded that; in terms of the achievement test scores, the objective to raise the vocabulary level was achieved.

Evaluation Design C: One group design using pretest and/or posttest scores on the project group to compare observed performance with local, state, or national norms.

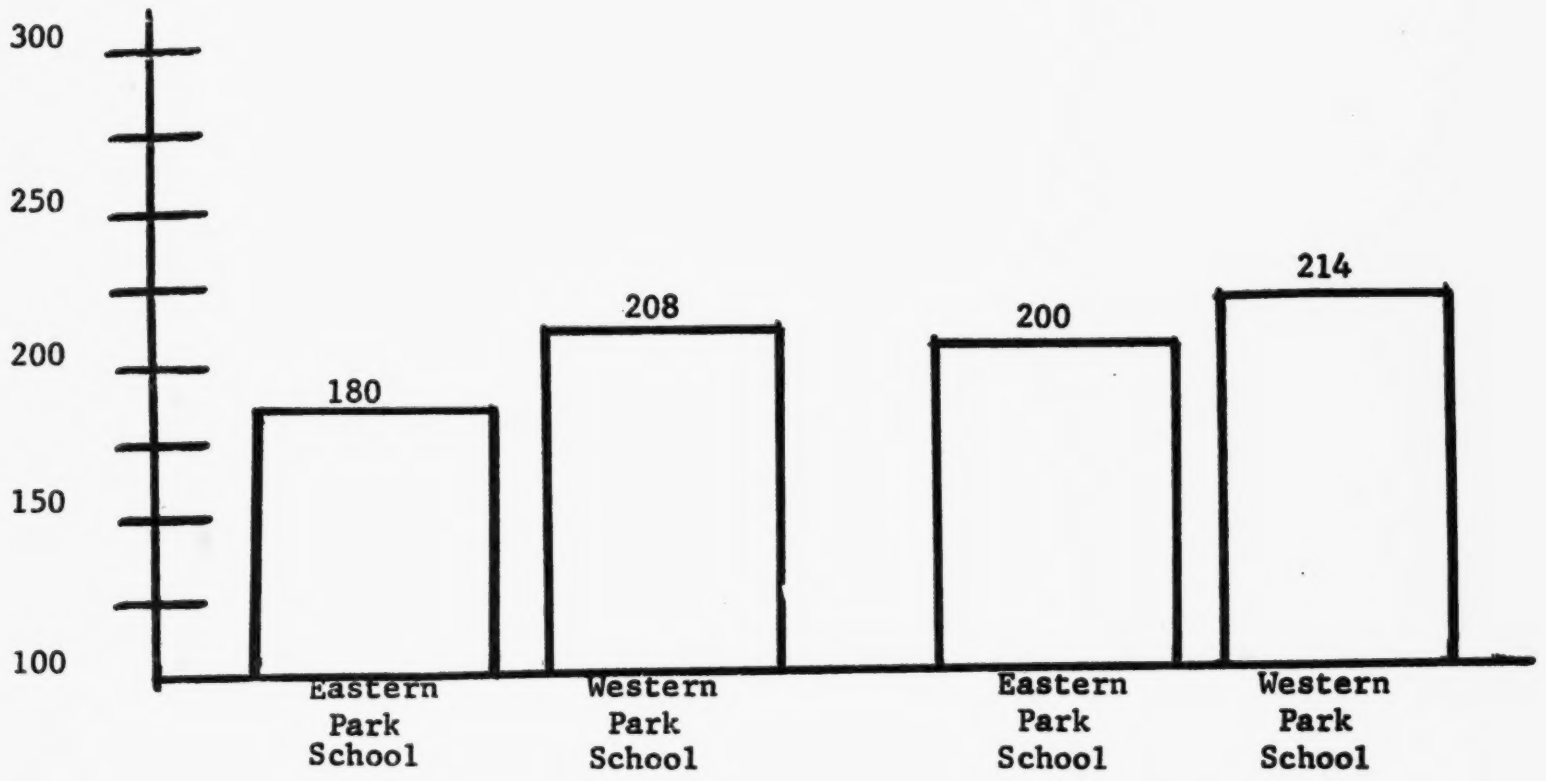
A district conducted a four month remedial project in arithmetic for a 6th grade class. In checking arithmetic scores of previous years it was found that the 6th grade classes in the district usually earned a mean of around 6.8 at the end of the term. The results of the pre- and posttest mean scores for the Title I group and the comparison with the local norm may be seen below.



The results indicated that the Title I group made substantial gain but did not reach the mean score of all the 6th grade classes in the district. This did not indicate that the project was not effective; the gain shown over the pretest score was substantial.

(Illustrations of Evaluation Designs)

Evaluation Design D: One group design using test data on the project group to compare observed performance with expected performance based upon data for past years in the school or upon past years of the group.
Example 1.: Data on a Title I project group compared with the data from previous years in the Title I school and a non-Title I school.

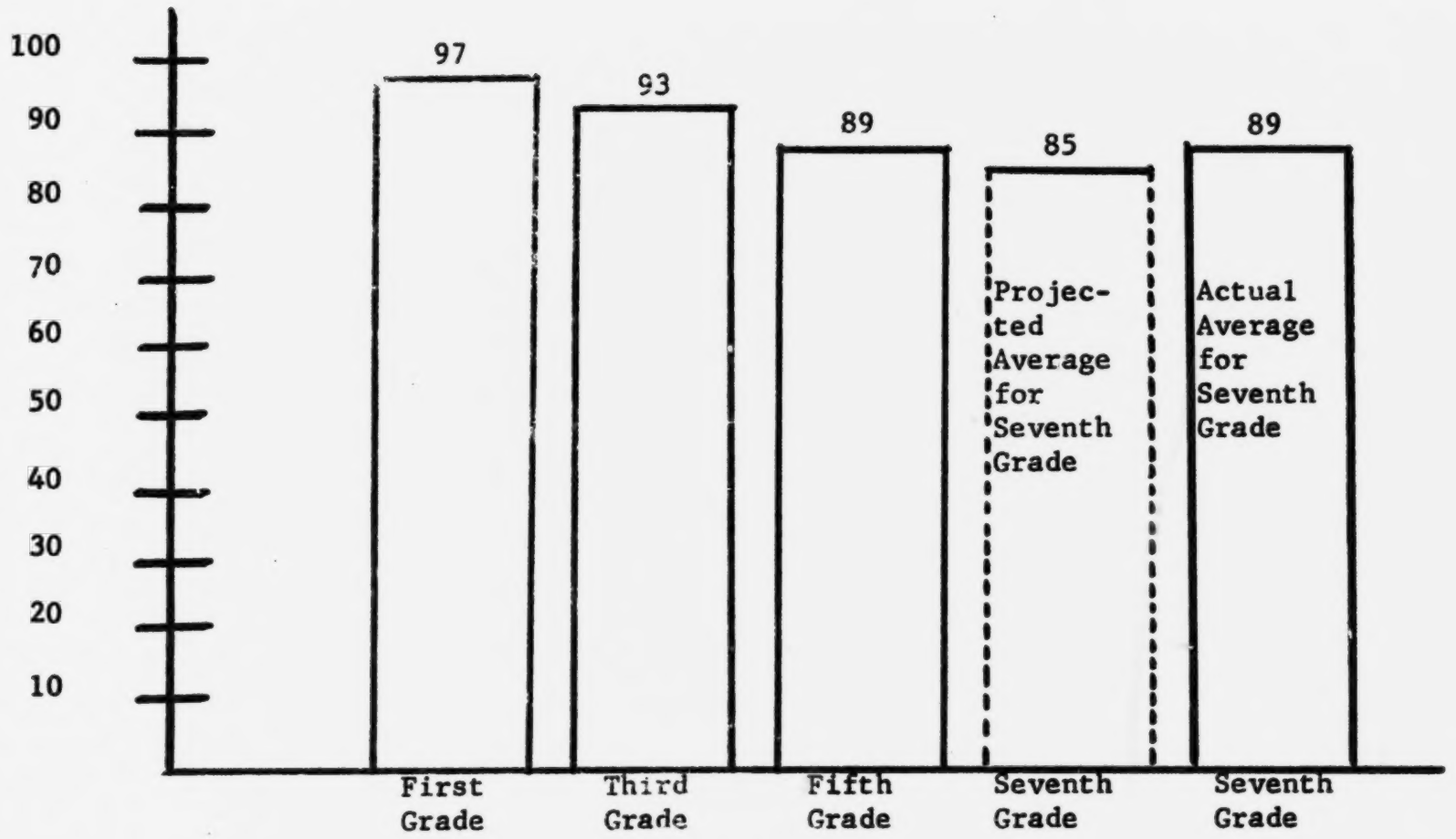


In Eastern Park School an enriched and individualized reading Title I project was inaugurated in the first grade. In May, this group of children earned a sight vocabulary test average score of 200. Comparison was made with the average of 180 posted last year by Eastern Park School first-graders, and average scores of 208 last year and 214 this year earned by first-graders in the Western Park School. The project was judged successful by the school district.

Example 2.: Data on a Title I group compared with data from the previous scores of the same group.

Mean achievement reading test scores of 97, 93, and 89 were recorded in grades one, three, and five respectively for members of a seventh grade Title I project group at the beginning of the Title I project. In the seventh grade, the projected average for this group without the benefit of the Title I project would be 85. The actual average in the seventh grade of the project group would then be contrasted with the projected average.

(Illustrations of Evaluation Designs)



Often these quotients of educationally disadvantaged children tend to decrease as further yearly evaluations are made. In this example, it would be encouraging to see that this trend has been arrested. The project was judged successful by the school district.

Evaluation Design E: One group design using test data on the project group, but no comparison data.

A district conducted a concentrated remedial project with a sixth grade group for one semester and reported the results of the pre- and posttests as shown below.

	Mean
Posttest	5.5
Pretest	5.0
Change	+.5

It can be seen that there was a +.5 gain in the mean score for the group. Since this procedure reports results and does not afford a meaningful comparison, it is not as desirable as the other designs.

Illustration for Table 6. Use of Standardized Tests and Other Measures

Directions: Check, according to appropriate grade level(s), the specified types of standardized tests and other measures used in this project.

For example, if your project covered grades 1-8 and utilized standardized achievement tests and teacher made tests in the skill development activities and teacher ratings and observer reports in attitudinal and behavioral development activities; these would be checked as shown below:

MEASURES	SKILL DEVELOPMENT ACTIVITIES					ATTITUDINAL AND BEHAVIORAL DEVELOPMENT ACTIVITIES				
1. Standardized Tests & Inventories	Grades Pre-Kg. Kg.	1-3	4-6	7-9	10-12	Pre-Kg. Kg.	1-3	4-6	7-9	10-12
a. Achievement		✓	✓	✓						
b. Intelligence										
c. Aptitude										
d. Interest										
e. Attitude										
f. Others (Specify)										
2. Other Tests										
a. Locally Devised Tests										
b. Teacher Made Tests		✓	✓	✓						
c. Others (Specify)										
3. Other Measures										
a. Teacher Ratings							✓	✓	✓	
b. Anecdotal Records										
c. Observer Reports							✓	✓	✓	
d. Others (Specify)										

Illustration for Table 7. Summary of Project Effectiveness.

Determine the method to be used as a basis for judgement of project activity effectiveness. Next choose a determinate to differentiate or assess the degree of progress shown by each student, then enter the number of students in each grade range and progress column for the stated objectives.

	CODE NUMBERS*	
Type of Instructional Activity or Supplementary Service	116	Specialized Reading Instruction
1st Objective	012	Improve reading skills
2nd Objective	032	Improve attitudes toward school

*Should be the same as shown on project application

	1st OBJECTIVE			2nd OBJECTIVE		
School Level	Substan-tial Progress	Some Progress	Little or no Progress**	Substan-tial Progress	Some Progress	Little or no Progress**
Pre-School						
Grades 1-3	5	15	3	20	1	2
Grades 4-6						
Grades 7-9	12	10	2	4	15	5
Grades 10-12						
Totals	17	25	5	24	16	7

**Little or no progress above that normally expected for this group.

Basis for judgement of project activity effectiveness:

(X) Standardized test scores

( ) Teacher made tests

( ) Rating scales, questionnaires, etc.

(X) Observation by professional staff

( ) Other (specify) _____

Illustration of Table 8. Frequency Distribution of Standardized Test Scores

A district conducted a five month reading project for fifth grade classes. The pre and post test data for the vocabulary subtest are shown below by grade placement scores.

Student Number	Grade Scores Pretest	Posttest	Student Number	Grade Scores Pretest	Posttest
1	4.5	5.0	9	3.7	3.9
2	4.5	5.0	10	3.7	4.0
3	4.5	4.9	11	3.6	3.6
4	4.0	4.3	12	3.9	3.6
5	4.1	4.6	13	3.6	4.0
6	4.3	4.9	14	4.0	4.5
7	4.4	5.0	15	3.6	3.9
8	4.4	5.0			

Determine the range of scores, then make a worksheet to tally the grade placement scores made. Using the above test results, the following example was constructed.

RANGE OF SCORES Pretest 3.6 to 4.5 Posttest 3.6 to 5.0

	Pretest tally	Number*	Posttest tally	Number*
3.6	///	3	//	2
3.7	//	2		
3.8				
3.9	/	1	//	2
4.0	//	2	//	2
4.1	/	1		
4.2				
4.3	/	1	/	1
4.4	//	2		
4.5	///	3	/	1
4.6			/	1
4.7				
4.8				
4.9			//	2
5.0			////	4

*These numbers should be entered in the appropriate column in Table 8.

21

TABLE 8. FREQUENCY DISTRIBUTION OF STANDARDIZED TEST SCORES

BY GRADE PLACEMENT (grade equivalent) SCORES

Name of Test Iowa Test of Basic Skills Name of Subtest Vocabulary

Grade 5 Length of Project 20 weeks No. of weeks between tests 18

	PRE-TEST	POST-TEST
Number of Children	15	15
Date of Test	1/6/67	5/12/67
Form	1	2

	Pretest	Posttest		Pretest	Posttest		Pretest	Posttest		Pretest	Posttest		Pretest	Posttest
G.P.	No.	No.	G.P.	No.	No.	G.P.	No.	No.	G.P.	No.	No.	G.P.	No.	No.	G.P.	No.	No.
1.1			3.1			5.1			7.1			9.1			11.1		
1.2			3.2			5.2			7.2			9.2			11.2		
1.3			3.3			5.3			7.3			9.3			11.3		
1.4			3.4			5.5			7.4			9.4			11.4		
1.5			3.5			5.5			7.5			9.5			11.5		
1.6			3.6	3	2	5.6			7.6			9.6			11.6		
1.7			3.7	2		5.7			7.7			9.7			11.7		
1.8			3.8			5.8			7.8			9.8			11.8		
1.9			3.9	1	2	5.9			7.9			9.9			11.9		
2.0			4.0	2	2	6.0			8.0			10.0			12.0		
2.1			4.1	1		6.1			8.1			10.1			12.1		
2.2			4.2			6.2			8.2			10.2			12.2		
2.3			4.3	1	1	6.3			8.3			10.3			12.3		
2.4			4.4	2		6.4			8.4			10.4			12.4		
2.5			4.5	3	1	6.5			8.5			10.5			12.5		
2.6			4.6		1	6.6			8.6			10.6			12.6		
2.7			4.7.			6.7			8.7			10.7			12.7		
2.8			4.8			6.8			8.8			10.8			12.8		
2.9			4.9		2	6.9			8.9			10.9			12.9		
3.0			5.0		4	7.0			9.0			11.0					

Evaluative Criteria

The evaluative criteria listed below may be utilized to assess learning outcomes in the following areas. (These are suggestions and are not intended to be complete listings):

1. Basic skills in subject-matter areas
2. Emotional and social adjustment
3. Attitudes
4. Special abilities

Example: To assess change in attitudes in a given area; the district could use the following types of measuring devices or data: Observations, Questionnaires, Rating scales, Dropout information, Attendance records, Case studies, Anecdotal records, Pupils' writings, and Teacher grades.

EVALUATIVE CRITERIA	ACTIVITY AREAS			
	1	2	3	4
Standardized tests	X			X
Locally devised tests	X			X
Teacher-made tests	X			X
Teacher grades	X			
Observations	X	X	X	X
Questionnaires			X	
Rating scales		X	X	
Dropout information		X	X	
Attendance records		X	X	
Case studies	X	X	X	
Anecdotal records			X	
Records of student participation	X	X	X	
Pupils' writings	X	X	X	
Checklists		X	X	
Sociograms		X		
Parent involvement			X	

(Evaluative Criteria)

The following criteria may be used with projects in which the effectiveness of the major activities are not readily assessed through the use of the evaluation designs which have been provided.

TYPE OF PROJECT	EVALUATIVE CRITERIA
A. Kindergarten	1. Recorded teacher observations of work and play activities or skills learned. 2. Individual records of pupil changes. 3. Results of Reading and Number Readiness test 4. Results of parent questionnaires concerning project acitivities and the effect the activities seem to have on their child. 5. Case studies.
B. Instructional Materials Center	1. Number of students using materials 2. Teacher observation of any change in student work habits, class participation, and achievement. 3. Results of questionnaires completed by parents and students 4. Summarize records of quantity, quality, and level of material utilization. 5. Records of teacher use of materials for classroom activities.
C. Physical Education and Health	1. Records of periodic physical examinations. 2. Results of objective physical fitness tests. 3. Results of objective health tests. 4. Teacher observations of any change. 5. Case studies.
D. Library Services	1. Summarize records of quantity, quality, interest area, and level of reading done by pupils. 2. Objective measurement of pupils' knowledge of library skills. 3. Records of utilization of library resources by teachers in classroom activities. 4. Results of questionnaires completed by teachers, parents, and students. 5. Teacher observation of pupil usage of library skills in independent classroom activities.

GUIDE FOR COMPUTING QUARTILE POINTS

District X diagnosed the educational needs of their pupils and found that in one qualified elementary area 40 per cent of the children fell one grade or more below their expected level on achievement test scores. The district implemented a remedial reading project in the school for grades 4 - 8. Any child who scored one grade or more below his expected level was included in the activities of the project.

The length of the project was four months. At the end of the project the Title I group was administered an alternate form of the same test. The pre- and posttest scores for children in grades 4 - 8 who participated in the project are shown on page To facilitate handling the scores, only 15 pupils have been included at each grade level in the example.

In order to show any change in the quartile points it was necessary to compute these points for the pretest scores and again for the posttest scores for each grade level and also for the total group.*

Pretest Scores

The first quartile point is that score below which are found one-fourth, or 25 per cent of the scores. The third quartile point is that score below which are found three-fourths or 75 per cent of the scores.

In order to make the scores easier to handle a frequency distribution was set up. The first step was to determine the range. This was found by computing the difference between the highest pretest score (7.5) and the lowest pretest score (2.6). The range was 4.9. Usually, the number of intervals to be used in constructing the frequency distribution is between 10 and 20. Dividing the range by the proposed number of intervals and rounding this value will result in an interval which will accomplish the desired results.

---

* In this example the quartile points have been computed for all grade levels in the Title I group. The same procedures would be used to compute the quartile points for each grade.

Reading Scores for Title I Remedial Reading Project

Student	4th Grade		5th Grade		6th Grade		7th Grade		8th Grade	
Number	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1.	3.5	4.1	4.5	5.0	5.0	5.3	6.5	6.9	7.0	7.5
2.	3.2	3.4	4.5	5.0	5.0	5.4	6.4	6.9	7.0	7.4
3.	3.0	3.5	4.5	4.9	5.4	5.9	5.4	6.0	6.9	6.9
4.	2.9	3.3	4.0	4.3	5.3	6.0	5.5	6.0	7.4	7.9
5.	2.6	2.9	4.1	4.6	5.0	5.5	5.3	5.9	7.3	7.9
6.	2.7	3.4	4.3	4.9	4.5	4.9	6.4	6.6	7.2	7.5
7.	3.5	3.2	4.4	5.0	4.5	4.5	6.0	6.3	6.8	7.3
8.	3.4	4.0	4.4	5.0	4.8	5.3	6.4	6.9	6.7	7.4
9.	3.3	4.0	3.0	3.9	5.0	5.6	6.4	6.9	6.3	7.0
10.	3.1	3.4	3.0	4.0	5.4	5.5	5.9	6.3	5.9	6.5
11.	3.1	3.3	3.6	3.5	5.1	5.6	5.9	6.4	7.3	7.7
12.	3.2	4.0	3.9	3.6	5.4	5.9	6.4	7.0	7.1	7.3
13.	2.7	3.2	3.6	4.0	5.1	6.0	6.0	6.6	7.5	7.6
14.	2.7	3.2	4.0	4.5	4.8	5.3	6.3	6.3	7.4	7.5
15.	2.6	3.6	3.5	3.5	4.7	5.0	6.2	6.8	7.0	7.8
TOTAL	45.50	52.50	59.30	65.70	75.00	81.70	91.00	97.80	104.80	111.30
Means	3.03	3.5	3.9	4.4	5.0	5.4	6.1	6.5	6.9	7.4

Means for all grades: Pretest 5.0 Posttest 5.5

(Guide for Computing Quartile Points)

Taking the range 4.9 and dividing it by 15 gives an interval size of .32, rounding this gives .3 as the interval size. It is customary to start the interval at a value which is a multiple of the size of that interval. The frequency distribution for the pretest scores is shown below.

Work Table for Frequency Distribution of Pretest Reading Scores of Title I Group.

Interval	Tally	Frequency (f)	Cumulative (f)
7.5 - 7.7	/	1	75
7.2 - 7.4	/HH/	5	74
6.9 - 7.1	/HH/	5	69
6.6 - 6.8	//	2	64
6.3 - 6.5	/HH/ ///	8	62
6.0 - 6.2	///	3	54
5.7 - 5.9	///	3	51
5.4 - 5.6	/HH/	5	48
5.1 - 5.3	////	4	43
4.8 - 5.0	/HH/ /	6	39
4.5 - 4.7	/HH/ /	6	33
4.2 - 4.4	///	3	27
3.9 - 4.1	////	4	24
3.6 - 3.8	//	2	20
3.3 - 3.5	/HH/	5	18
3.0 - 3.2	/HH/ //	7	13
2.7 - 2.9	////	4	6
2.4 - 2.6	//	2	2
	Total	75	

Computation of First and Third Quartile Points for Pretest Reading Scores.

$$\text{Quartile One } (Q_1) = L + \left(\frac{\frac{N}{4} - f_c}{f_w}\right) h$$

Where

L = lower limit of the interval containing Q_1.

f_c = cumulative frequency below the interval containing Q_1.

f_w = frequency within the interval containing Q_1.

N = total number of scores.

h = score interval.

Therefore, for the example

$$Q_1 = 3.6 + \left(\frac{\frac{75}{4} - 18}{20}\right) \times .3$$

$$= 3.6 + \frac{18.75 - 18}{20} \times .3$$

$$= 3.6112$$

$$= 3.6$$

The same formula may be applied to find Q_3 providing that the fraction $\frac{N}{4}$ is changed to read $\frac{3N}{4}$ and the entries for L, f_c, and f_w, are changed accordingly

$$Q_3 = 6.3 + \left(\frac{\frac{3 \times 75}{4} - 54}{62}\right) \times .3$$

$$= 6.3 + \frac{56.25 - 54}{62} \times .3$$

$$= 6.3108$$

$$= 6.3$$

The same procedures were followed in constructing the frequency distribution for the posttest scores as was used with the pretest scores. These computations are shown below.

Work Table for Frequency Distribution of Posttest Reading Scores of Title I Group.

Interval	Tally	Frequency (f)	Cumulative (f)
7.8 - 8.0	///	3	75
7.5 - 7.7	𝍸	5	72
7.2 - 7.4	////	4	67
6.9 - 7.1	𝍸 //	7	63
6.6 - 6.8	///	3	56
6.3 - 6.5	𝍸	5	53
6.0 - 6.2	////	4	48
5.7 - 5.9	///	3	44
5.4 - 5.6	𝍸	5	41
5.1 - 5.3	///	3	36
4.8 - 5.0	𝍸 ///	8	33
4.5 - 4.7	///	3	25
4.2 - 4.4	/	1	22
3.9 - 4.1	𝍸 //	7	21
3.6 - 3.8	//	2	14
3.3 - 3.5	𝍸 ///	8	12
3.0 - 3.2	///	3	4
2.7 - 2.9	/	1	1
	Total	75	

Computation of First and Third Quartile Points for Posttest Reading Scores.

The same formula and procedures were used for computing the first and third quartile points for the posttest scores as was used for the pretest scores.

$$Q_1 = 3.9 + \left(\frac{\frac{75}{4} - 14}{21} \right) \times .3$$

$$= 3.9 + \frac{18.75 - 14}{21} \times .3$$

$$= 3.967$$

$$= 4.0$$

$$Q_3 = 6.9 + \left(\frac{\frac{3 \times 75}{4} - 56}{63} \right) \times .3$$

$$= 6.9 + \frac{56.25 - 56}{63} \times .3$$

$$= 6.9011$$

$$= 6.9$$

A summary of these results may be seen on page 8 of this guide.

All project activities should show change influenced or caused by having a Title I project. Supplementary services may show changes by a quantitative summary of students using the service over a period of time or by showing the number of things provided by the service. Therefore, a Title I counselor might indicate the number of tests administered, number of interviews held, etc. A teacher aide might report the number of services performed, number of periods of playground duty, etc. These summaries combined with professional observation of the services performed would serve as one way of evaluation.